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ABSTRACT

Effective provision of services to disabled rural children and their families requires collaborative effort between special educators and social workers. However, such a collaborative effort is impeded by social workers' lack of knowledge about special education laws and services and about disabled children and their families. A major technological advancement in inservice training of social workers is interactive videodisc-based instruction. The pace of the individualized training is controlled by the student's demonstrated understanding of the material. This technology has the capability of allowing students to simulate the skills learned by interacting with the video image. Branching allows remediation of incorrect responses and provides for choices of relevant information, topics, and examples. Comprehensive tests assess overall understanding and skill level and students are reinstructed in those areas in which their understanding or application is low. Video-based instruction combines two inexpensive, off-the-shelf technologies: the desktop microcomputer and the videodisc player. Interactive videodisc-based instruction is being used in a curriculum development project being developed jointly by the Social Work Program and the Department of Special Education at Kansas State University. The curriculum will provide inservice training for rural social workers that covers child development, special education laws, assessment, and family and community factors. (LP)

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Interactive Technology to Teach Rural Social Workers about Special Needs Children and Their Families

The current direction of public policy concerning human services, and current economic conditions support movement toward decentralization, networking, and interagency collaboration (Education and Human Services Consortium, 1991). Sharing of responsibility and expertise through collaboration and cooperation is a viable method for service delivery to rural children with disabilities and their families. Collaboration offers unique advantages in service delivery systems for exceptional children. It meets some of the unique problems of providing services for disabled students in rural areas where geographical isolation, population density, and limited fiscal resources are constraints which cannot easily be alleviated (Dettmer, Thurston, & Dyck, 1993).

A major player in the delivery of services to rural special needs children and their families is the rural social worker. Social workers do not have formal training in special education and yet they are important team members, especially with low-income or at-risk families. Not only are social work services part of IDEA, many families whose children are in special education are served by public social workers. Such children may be in foster homes, in group homes, or in families that require other services such as Aid to Families with Dependent Children (AFDC) or family preservation programs. As human service agencies and education agencies increasingly work together to provide for the multiple needs of disabled children and their families, it is essential that they understand each other's roles.

As is true with many other professionals serving rural areas, rural social workers are usually generalists. However, they serve multiple roles, even though they may not have the specific training necessary to work with disabled children and their families. The emphasis of teaming in IDEA as well as the necessity of teaming in rural areas because of the paucity of services and personnel, necessitates in-house programs to make generalists (social workers and others) into "specialists" who are more knowledgeable about special education and children and families with special needs. Collaborative efforts between special education and other social services, especially social workers, must be enhances for optimal service to disabled children and their families (Roth, 1989; Powers, 1990).

There are a number of barriers unique to the rural setting which may inhibit the

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collaborative efforts of service providers and which make training social workers in rural settings a challenging endeavor (Helge, 1981; Thurston, 1990). First, barriers to collaborative efforts include documented rural attitudes about asking for help and about mental health services and workers. Research in several parts of the country has demonstrated that rural respondents were not aware of the meager services that existed in their communities (Edgerton & Bentz, 1960), and that "one must be 'crazy' before seeking care" (Tranel, 1970). Traditional rural values of individualism and internal locus of control lead to the perception that asking for help is demeaning (Goldstein & Eichorn, 1961), and Johnson (1980) suggests that the visibility of the rural social worker only serves to augment the problem as clients feel that help-seeking is a public admission of weakness.

Wodarski and Naugher (1983), in researching mental health services, found that, compared to their urban counterparts, an extremely small percentage of the county's rural residents were being treated in the mental health center. They speculate that either a significant number of persons must be not viewing their problems from a psychological frame of reference, or they are coping with distress in other ways, such as utilizing the natural helping networks of rural areas. In addition, they found that clients of the rural mental health center in their study were not the typical urban image of persons receiving mental health care, that is, educated and articulate. Rather, they were uneducated, poverty-stricken, and alone. Wodarski and Naugher (1983) summarize by suggesting that social services in rural areas must endeavor to understand the mores and values on their community, learn about other services that are available, and they must also be award that traditional forms of helping may have limited impact on the rural residents for whom survival issues are of primary importance.

Michaux, Pruim, Foster & Chelst, (1973) and Nachtigal (1982) suggest that families and individuals living in rural areas are more tolerant of defiant behavior that are persons living in large urban settings, although Bagarozzi (1982) suggests that rural communities are less tolerant of "outside interference" such as in the creation of rural mental health centers. These characteristics of rural residents and rural communities have an impact of the need to collaborate and the ease (or difficulty) of interpersonal and interagency collaboration. They suggest the importance of a family-based or community-based approach to dealing with disabled children and their families.

Another barrier may be the competition and mistrust between formal and informal social service agencies (Thomas & Bell, 1969). This may severely inhibit the effort of individual service providers, such as special educators and social workers, to work together and to gain entry into each others' existing systems. Developing linkages has proved difficult in many programs designed to serve rural populations (Williams, 1983).

A final barrier to collaboration is the lack of knowledge of general social work practitioners about special education laws and services and about disabled children

and their families. In addition, special educators often do not understand to role of the social worker and there is often little communication between the two, even though both may be working with the student and the family. As human service agencies and education agencies increasingly work together to provide for the multiple needs of rural disabled children and their families, it is essential that team members understand each others' roles (Dettmer, Thurston, & Dyck, 1993). Because of the paucity of such services for disabled students and their families in rural areas, collaborative efforts and mutual education is the most pragmatic approach to serve these families. Educating support staff and human service partners about special education services and students is crucial to the collaborative process called for in IDEA and is vital to providing the best services possible for students and their families.

Many approaches have been used to provide in-service training for social workers and other human service workers in rural areas. Too often, travel time and expense to a central training location makes traditional types of training difficult. Waiting until there are enough participants for a training at a particular rural location means expensive consultant time and travel. It also means that many staff do not receive training in a timely manner. In addition, special educators and administrators rarely have time to conduct such in-service training for support staff or for other agency team members

A common option for inservice training of education and human service personnel is continuing education at Universities (Barber, 1987; Benson & Hirschen, 1987). Not all rural residents are able to leave work to travel to University settings and few courses are offered at off-campus sites. While distance learning opportunities have multiplied greatly in the past several years, relevant course work and access to the technology necessary to participate in these opportunities may prohibit the wide use of distance education for educating rural social workers about special education laws, programs, and students.

A major technological advancement in training is the interactive videodisc-based instruction. This is a synthesis of instructional, video, and computer technologies which has been shown to be very effective in promoting learning and generalization (Muller & Leonetti, 1992). Research also indicates that effective interactive videodisc-based instruction produces greater retention rates than typical group instruction (Muller & Leonetti (1992).

Interactive videodisc-based instruction presents individualized training. The pace of instruction is controlled by the student's demonstrated understanding and the instruction is presented patiently and thoroughly. The technology has the capability of allowing the student to simulate the skills she is learning by interacting with the video image. Branching allows remediation of incorrect responses and provides for choices of relevant information, topics, and examples for individual students. The student moves through the entire instructional package, making choices of segments to review, study, or omit. Comprehensive tests assess overall understanding and skill and the student is reinstructed in those areas in which her understand or application in

unacceptably low. According to Muller and Leonetti (1992), because the visual and audio imagery is so highly realistic, the percentage of learning that is transferred to the actual situation is very high.

Videodisc-based instruction combines two inexpensive, off-the-shelf technologies: the desktop microcomputer and the videodisc player. The computer control the instructional process and records each of the student's responses to provide a permanent progress record. The videodisc player supplies the television images and sound. The videodisc player has random access capability, an essential feature of individualized instruction. This feature allows the instruction to "branch" to remediation when necessary or to move ahead when the student demonstrates competency. Branching allows each student to receive the sequence and amount to instruction required to master the skills.

Instructional material is placed on the video-disc and a computer program is written to control the sequence of instruction. The program can be placed on a floppy disk or on a videodisc. Programs may be supported by print materials.

There are several inherent advantages for using interactive videodisc-based instruction which make the technology very appropriate to rural areas. First, the material can be developed specially for rural populations, with rural settings and rural variables taken into account. In addition, the computer program can be updated with new materials, such as updates on special education laws. Rural social workers can access the instruction at any time and they do not have to drive to a training center, nor does a teacher have to travel to the learners. They can receive the training when they need it; there is no need to wait until a group is formed or a consultant is available. And finally, student progress is recorded and can be used for awarding Continuing Education Units (CEU's) and for staff performance evaluation.

In summary, interactive videodisc-based instruction has the advantages of timeliness, flexible training periods, effectiveness, and multiple applications (Muller & Leonetti, 1992; Cartwright). It is capable of providing the type of staff development needed for busy rural human service workers who must be "Jills-of-all-trades" as well as specialists in providing services to disabled children and in collaborating effectively with special education professionals.

Interactive videodisc-based instruction is being used in a curriculum development project which is a joint effort between the Social Work Program and the Department of Special Education at Kansas State University, a land-grant University in rural north central Kansas. The purpose of the curriculum is to provide inservice training for rural social workers to develop skills for working with children and families. The first unit, which represents one videodisc and a floppy with the instructional program, is about child development and is meant to teach social workers about normal and at-risk development. The unit also focuses on special education laws and definitions and includes information about assessment so the workers will become knowledgeable members of a multi-disciplinary or trans-disciplinary team.

The competencies for the child development module were based on a state-wide survey of rural social workers and their supervisors, a review of the literature, and the expertise of the faculties of social work, early childhood education, and special education. The competencies are:

1. The worker will know the developmental terms: normal, disability, and at-risk.
2. The worker will know the names of the basic categories of special education classification in the state of Kansas.
3. The worker will know the services provided for children with disabilities, as indicated by IDEA
4. The worker will know common factors which may indicate at-risk development.
5. The worker will understand the relationship of learning theory to child development and remedial services
6. The worker will discriminate between these assessment types: screening, behavioral observation, norm-referenced, criterion-referenced, and family focused.
7. The worker will know the roles of various professional on a multi-disciplinary special education team.
8. The worker will define behavior in observable and measurable terms.
9. The worker will identify the domains of normal development and discriminate normal from development at risk.
10. The worker will understand the basic components of special education laws, specially early childhood special education.

The basic areas of the program are the overview, which established the need for social workers to be able to identify possible risk factors and possible developmental problems. This area also identifies other professionals, or collaterals, who will work with the social worker who deals with families with children with special needs and describes the roles of these professionals.

The second part of the curriculum focuses on domains of normal development and shows developmental milestones with examples from all ages and ethnic backgrounds. The third part of the curriculum covers development at risk and includes categorical areas of disabilities and risk factors, such as environmental, physical, and social factors which impact on development. Next is about assessment and includes developmental tools, behavioral definitions, and observational methods. The final areas is about family and community factors in development and ways to measure development based on information from the community or family. An example is the home visit. After each curriculum component, there is a brief review which determines whether the student understands the component well enough to go on to the next component. In addition, at the end of the entire module, the student completes a review which incorporates all the aspects of the curriculum in making decisions or

recommendations regarding child development.

After the development of the competencies, the curriculum was designed to present the information and to teach the skills using instructional methodologies which are appropriate for interactive videodisc-based instruction. Videotapes were made to demonstrate the concepts included in the curriculum. For example, there is a college classroom where behavioral measurement is being discussed. There are video clips of many children and their families demonstrating developmental milestones and various disabilities. In addition, there are clips of social workers making visits and interviewing teachers. There are clips in special education classes.

The completed product will include supporting print media and instructions for the use of the program. It will be used for preservice and inservice training for social workers who serve in rural areas of Kansas. The branching and review sections of the curriculum will provide as assessment of the progress of students participating in the program. For preservice undergraduate students, field experiences will be arranged at rural sites. These field experiences will provide practical situations in which the competencies taught in the curriculum will be used and evaluated. Inservice students will be able to progress though the curriculum at their own pace and upon successful completion of the curriculum they will earn college credit or CEU's.

The need for social workers to become informed about special education regulations, programs, and students is vital to the collaborative efforts to provide comprehensive services to rural children. The possess unique skills which make them an invaluable member of the professional team. Training rural workers, who are generalists, about these issues involves the same problems faced by all inservice and staff development programs in rural and remote areas. The use of interactive videodisc-based instruction holds promise for quality training which is individualized, updatable, and assessable. Establishing expected competencies from field surveys and they designing video footage and computer programs to teach and evaluate the competencies are the major steps in providing interactive vidoedisc-based instruction to rural social workers.

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